CAS 75-09-2

Substance name Methylene chloride (also called dichloromethane)

Toxicity

Methylene chloride is classified as a carcinogen by authoritative sources.[1,2,3] Inhalation exposures in laboratory animals result in lung and liver cancers and mammary gland tumors.[2] Methylene chloride is metabolized to carbon monoxide in mammals.[3] Because carbon monoxide increases the levels of carboxyhemoglobin in the blood and is a known reproductive hazard, Reprotext classifies methylene chloride as a Class A+ reproductive hazard.[4]

Exposure

Methylene chloride is used as an industrial solvent in paint removers and degreasers, as a carrier solvent in the textile industry, and as a blowing agent in foam production. It is used in inks and adhesives and in plastics manufacture, as an extraction solvent for spices and hops, and is used to extract caffeine from coffee.[1,2,5] Methylene chloride is also used in spray shoe polish and water repellent and in wood stains, varnishes and finishes.[2] It was detected in 1 of 14 slimy toys tested by the Danish EPA.[7]

References

1. WHO, International Agency for Research on Cancer. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume No 71: Re-evaluation of Some Organic Chemicals, Hydrazine and Hydrogen Peroxide, Part One, 1999. http://monographs.iarc.fr/ENG/Monographs/PDFs/index.php
2. U.S. DHHS, PHS, National Toxicology Program. Report on Carcinogens, Eleventh Edition. 2005. http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s066dich.pdf
3. U.S.EPA, Integrated Risk Information System (IRIS). Dicloromethane http://www.epa.gov/iris/subst/0070.htm and External Review Draft of the Dichloromethane Assessment, March 2010 http://cfpub.epa.gov/ncea/iris_drafts/recordisplay.cfm?deid=220583.
4. "Methylene Chloride" in REPROTEXT Database Version 5.1 Greenwood Village, CO: Thomson Reuters (Healthcare) Inc. (accessed 2009).
5. Health Canada, Priority Substances List Assessment Report: Dichloromethane. 1993. http://www.hc-sc.gc.ca/ewh-semt/pubs/contaminants/psl1-lsp1/index-eng.php
6. Danish Ministry of the Environment, Environmental Protection Agency. Survey of Chemical Substances in Consumer Products, Report 67, 2005. http://www.mst.dk/English/Chemicals/Consumer_Products/Surveys-on-chemicals-in-consumer-products.htm.